

Transfer of Nondestructive Evaluation Technology to Industry

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ABSTRACT

Nondestructive evaluation is a valuable tool for developing new materials, enhancing productivity, and determining the remaining life of a component. The Nondestructive Evaluation Section at Lawrence Livermore National Laboratory has an active technology transfer program to help improve the productivity of U S industry. The Section has been working with several companies to develop and implement NDE methods to reduce new product development costs and to improve quality. This presentation will describe the applications and the successful execution of several NDE techniques. The applications include new material developments, assessing casting processes, and monitoring the quality of laser welds. In all cases LLNL has worked closely with the industrial partner to solve their inspection needs and improve their economic competitiveness. For example, incremental improvements in their inspection systems have been accomplished. Also prototype NDE systems have been developed to prove the effectiveness of the technique. Once the technique is accepted, production line systems have been designed, built and installed in the factory. Experience gained from past implementation of NDE technologies in the Department of Energy's production agencies has contributed to the successful transfer of technology to private industry.

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